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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Nenad Rijavec

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EXAMINER

HUNTSINGER, PETER K

ART UNIT

PAPER NUMBER

2625

NOTIFICATION DATE

DELIVERY MODE

09/13/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/065,745	Applicant(s) RIJAVEC, NENAD	
	Examiner Peter K. Huntsinger	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4,6-9 and 14-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4,6-9 and 14-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 2-4 and 14-24 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed 6/17/10 with respect to claims 6-9 have been fully considered but they are not persuasive.

The Applicant argues on page 13 in essence that:

Motamed '050 fails to disclose a computer queuing work units for RIP PCs.

- a. Motamed '050 discloses that the system can receive jobs over network or media to one smart queue and automatically assign the job to the optimal RIP(s) and print engine(s), while sending the client up to the minute status (col. 5, lines 39-42).

Claim Objections

3. Claim 24 is objected to because of the following informalities: Replace line 1 of claim 24 with "An apparatus according to Claim 21, wherein said sequencer selectively ~~acting~~ acts". Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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5. Claim 9 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 9 is directed to data structures embodied on a computer readable medium. The broadest reasonable interpretation of a claim drawn to a computer readable medium includes forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media. See *Subject Matter Eligibility of Computer Readable Medium*, Jan. 26, 2010. The Applicant's specification does not limit computer-readable medium to non-transitory embodiments, and therefore claim 9 is non-statutory. The Examiner suggests amending the claims to include "non-transitory computer readable medium" or similar language.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 18 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 18 and 24 include the limitation "said sequencer selectively acting as one or more of said RIPs." While the Applicant's specification discloses that the sequencer functions may be performed by a RIP machine, the Applicant's specification does not disclose that the sequencer may function as a RIP selectively.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 18 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. The term "higher performance" in claims 18 and 22 is a relative term which renders the claim indefinite. The term "higher performance" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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12. Claims 2, 3, 14-17, 19-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barry Patent 6,825,943 in view of Motamed Patent 6,327,050 and Tannenbaum Patent 5,434,967.

Referring to **claim 2**, Barry '943 discloses said sequencer communicating work units to said RIPS, but does not disclose expressly queuing work units.

Motamed '050 discloses wherein said sequencer queues said work units to be communicated to said RIPS computer (col. 5, lines 39-42 the system can receive jobs over network or media to one smart queue and automatically assign the job to the optimal RIP(s) and print engine(s), while sending the client up to the minute status) and further wherein individual ones of said raster image processors draw from said queued work units related to an individual page generated data signals are communicated over said one or more RIP-to-head driver networks to a print head driver (col. 7, lines 26-35, the RIPS are connected to one or more video print machines 64 via a high speed interconnect bus 74. The video print machine provides output to a print engine 75).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize a print stream queue. The motivation for doing so would have been to increase the flexibility of scheduling rasterization. Therefore, it would have been obvious to combine Motamed '050 with Barry '943 to obtain the invention as specified in claim 2.

Referring to **claim 3**, Motamed '050 discloses wherein each of said RIPS converts said work units from a form communicated as a print data stream to data

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signals over said one or more RIP-to-head driver networks to a print head driver (col. 4, lines 30-52, the processors complete the RIP step on their assigned pages).

Referring to **claim 14**, Barry '943 discloses an apparatus comprising:

a pipeline of processors processing print control data and having:

one processor being a sequencer receiving a print data stream at an input port (instruction operator for job file 114 of Fig. 1a), said sequencer monitoring data flows among the pipelined processors and parsing a print data stream into local data portions related to individual pages (col. 4, lines 34-38) and global state data portions related to characteristics shared across a plurality of pages (col. 4, lines 26-30), said sequencer packaging together parsed page local and global state data portions as work units (col. 4, lines 34-40);

a plurality of raster image processors (RIPS) directly connected to said sequencer on one or more sequencer-to-page networks with said sequencer (col. 4, lines 34-40), each RIP receiving work units from said sequencer, said raster image processors processing work in parallel and generating data signals (Rip engines 150, 152, and 154 of Fig. 1b, col. 1, lines 41-50); and

Barry '943 does not disclose expressly a plurality of print head drivers.

Motamed '050 discloses one or more of said processors providing a plurality of print head drivers communicating over one or more RIP-to-head driver networks with said plurality of RIPS as directed by said sequencer, said sequencer synchronizing print jobs traversing said pipeline, each of said print head drivers receiving control data signal controlling application of colorant to a sheet by a print head (col. 7, lines 26-35, the RIPS

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are connected to one or more video print machines 64 via a high speed interconnect bus 74. The video print machine provides output to a print engine 75).

At the time of the invention, it would have obvious to a person of ordinary skill in the art to utilize a plurality of print head drivers. The motivation for doing so would have been to increase the print processing speed.

Barry '943 does not disclose expressly wherein said one or more sequencer-to-page networks and said one or more RIP-to-head driver networks are bidirectional networks.

Tannenbaum '967 discloses wherein said one or more sequencer-to-page networks and said one or more RIP-to-head driver networks are bidirectional networks (col. 3, lines 1-20, rasterizer logic is connected to the bit block transfer node such that bidirectional transfer of data between the rasterizer logic and the bit block transfer node is allowed).

At the time of the invention, it would have obvious to a person of ordinary skill in the art to utilize a bidirectional network. The motivation for doing so would have been to allow monitoring the status of processing devices in the system. Therefore, it would have been obvious to combine Motamed '050 and Tannenbaum '967 with Barry '943 to obtain the invention as specified in claim 14.

Referring to **claim 15**, Barry '943 discloses a plurality of RIPs, but does not disclose expressly wherein the RIPS are computers.

Motamed '050 discloses wherein a plurality of said processors in said pipeline are stand alone computers (col. 6, lines 45-59, additional RIPS may be added to the system while the system is in operation without interruption in normal system operation).

At the time of the invention, it would have obvious to a person of ordinary skill in the art to utilize a plurality of personal computer RIPS. The motivation for doing so would have been to provide a system that supports a hot pluggable interconnect. Therefore, it would have been obvious to combine Motamed '050 with Barry '943 to obtain the invention as specified in claim 15.

Referring to **claim 16**, Motamed '050 discloses wherein said plurality of processors includes a plurality of personal computers (col. 6, lines 45-59, any standard hardware or software RIP may be used in connection with the various modules which comprise the invention) (col. 1, lines 38-50, a hardware RIP is a computer which is attached to an output device and which is dedicated to translating digital image data for output).

Referring to **claim 17**, Motamed '050 discloses wherein said plurality of RIPS includes a plurality of personal computers (col. 6, lines 45-59, any standard hardware or software RIP may be used in connection with the various modules which comprise the invention) (col. 1, lines 38-50, a hardware RIP is a computer which is attached to an output device and which is dedicated to translating digital image data for output).

Referring to **claims 19 and 23**, Motamed '050 discloses wherein each of said plurality of RIPS is a personal computer, (col. 6, lines 45-59, any standard hardware or software RIP may be used in connection with the various modules which comprise the

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invention) (col. 1, lines 38-50, a hardware RIP is a computer which is attached to an output device and which is dedicated to translating digital image data for output), the number of RIPs being adjusted by adding and removing RIP personal computers to/from said one or more sequencer-to-page networks and said one or more RIP-to-head driver networks col. 6, lines 45-59, additional RIPS may be added to the system while the system is in operation without interruption in normal system operation).

Referring to **claim 20**, Barry '943 discloses an apparatus comprising:

a pipeline of computers processing print control data and connected between a print server and a printer and processing print control data from said print server, and said pipeline of computers having:

a sequencer computer (instruction operator for job file 114 of Fig. 1a) receiving a print data stream at an input port, said sequencer computer monitoring data flows among the pipelined computer and parsing a print data stream into local data portions related to individual pages (col. 4, lines 34-38) and global state data portions related to characteristics shared across a plurality of pages (col. 4, lines 26-30), said sequencer packaging together parsed page local and global state data portions as work units (col. 5, lines 8-13);

a plurality of raster image processors (RIPs) directly connected to said sequencer computer on one or more sequencer-to-page networks with said sequencer computer (col. 4, lines 34-40), wherein said plurality of RIPs each receiving work units from said sequencer, said plurality of RIPs processing work units in parallel and generating data signals (Rip engines 150, 152, and 154 of Fig. 1b, col. 1, lines 41-50).

Barry '943 does not disclose expressly wherein the RIPS are personal computers or utilizing a plurality of print head drivers.

Motamed '050 discloses wherein said plurality of RIPS is a plurality of personal computers (col. 6, lines 45-59, any standard hardware or software RIP may be used in connection with the various modules which comprise the invention) (col. 1, lines 38-50, a hardware RIP is a computer which is attached to an output device and which is dedicated to translating digital image data for output);

one or more print head driver computer communicating over one or more RIP-to-head driver networks with said plurality of RIPS as directed by said sequencer computer, said sequencer computer synchronizing print jobs traversing said pipeline, each of said print head drivers receiving control data signal controlling application of colorant to a sheet by a print head (col. 7, lines 26-35, the RIPS are connected to one or more video print machines 64 via a high speed interconnect bus 74. The video print machine provides output to a print engine 75);

wherein a plurality of said computers are stand alone computers (col. 6, lines 45-59, additional RIPS may be added to the system while the system is in operation without interruption in normal system operation).

At the time of the invention, it would have obvious to a person of ordinary skill in the art to utilize a plurality of personal computer RIPS and to utilize a plurality of print head drivers. The motivation for doing so would have been to provide a system that supports a hot pluggable interconnect and to increase the print processing speed.

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Barry '943 does not disclose expressly wherein said one or more sequencer-to-page networks and said one or more RIP-to-head driver networks are bidirectional networks.

Tannenbaum '967 discloses wherein said one or more sequencer-to-page networks and said one or more RIP-to-head driver networks are bidirectional networks (col. 3, lines 1-20, rasterizer logic is connected to the bit block transfer node such that bidirectional transfer of data between the rasterizer logic and the bit block transfer node is allowed).

At the time of the invention, it would have obvious to a person of ordinary skill in the art to utilize a bidirectional network. The motivation for doing so would have been to allow monitoring the status of processing devices in the system. Therefore, it would have been obvious to combine Motamed '050 and Tannenbaum '967 with Barry '943 to obtain the invention as specified in claim 20.

Referring to **claim 21**, Motamed '050 discloses wherein said plurality of computers comprises a plurality of personal computers (col. 6, lines 45-59, any standard hardware or software RIP may be used in connection with the various modules which comprise the invention) (col. 1, lines 38-50, a hardware RIP is a computer which is attached to an output device and which is dedicated to translating digital image data for output).

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13. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barry Patent 6,825,943, Motamed Patent 6,327,050 and Tannenbaum Patent 5,434,967 as applied to claim 3 above, and further in view of Hohensee Patent 5,946,460.

Referring to **claim 4**, Barry '943 discloses raster image processors but does not disclose expressly converting into a variable number of portions depending on whether a page is to be blank, single colored, or multiple colored.

Hohensee '460 discloses each of said raster image processors converts data from a form communicated as a print data stream into a variable number of portions depending upon whether an individual page is to be blank or to be printed with a single color or to be printed with multiple colors (col. 4, lines 53-60).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize a rasterizer to convert into a variable number of portions depending on whether a page is to be blank, single colored, or multiple colored. The motivation for doing so would have been to produce a separate bitmap for each color of ink required to print the page. Therefore, it would have been obvious to combine Hohensee '460 with Barry '943 to obtain the invention as specified in claim 4.

14. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barry Patent 6,825,943 in view of Motamed Patent 6,327,050.

Referring to **claims 6 and 9**, Barry '943 discloses a method comprising the steps of:

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receiving at a computer a print data stream from a print server and parsing the stream into local (col. 4, lines 34-38) and global portions (col. 4, lines 26-30);

packaging together parsed local and global print stream data portions (col. 5, lines 8-13); and

processing a plurality of communicated packaged print stream data portions in parallel to generate print head driving data signals (col. 2, lines 9-20, rendering each select portion of the print job with the plurality of RIPS in parallel).

Barry '943 does not disclose expressly queuing print stream data portions, or a plurality of personal computer RIPS.

Motamed '050 discloses queuing packaged print stream data portions in said computer (col. 5, lines 39-42 the system can receive jobs over network or media to one smart queue and automatically assign the job to the optimal RIP(s) and print engine(s), while sending the client up to the minute status);

communicating queued packaged print stream data portions directly over a network to a plurality of personal computers operating as raster image processors (RIPs) (col. 6, lines 45-59, any standard hardware or software RIP may be used in connection with the various modules which comprise the invention) (col. 1, lines 38-50, a hardware RIP is a computer which is attached to an output device and which is dedicated to translating digital image data for output);

processing a plurality of communicated packaged print stream data portions in parallel in said plurality of personal computers to generate print head driving data

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signals (col. 4, lines 30-52, the processors complete the RIP step on their assigned pages); and

communicating the generated print head driving data signals from said plurality of personal computers to one or more print head driver computers, said print head driver computers driving the print heads of a printer (col. 7, lines 26-35, the RIPs are connected to one or more video print machines 64 via a high speed interconnect bus 74. The video print machine provides output to a print engine 75).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize a print stream queue, and to utilize a plurality of personal computer RIPS. The motivation for doing so would have been to increase the flexibility of scheduling rasterization, and provide a system that supports a hot pluggable interconnect. Therefore, it would have been obvious to combine Motamed '050 with Barry '943 to obtain the invention as specified in claims 6 and 9.

Referring to **claim 7**, Barry '943 discloses wherein said step of packaging print stream data portions comprises packaging portions applicable to individual pages (col. 7, lines 34-36).

Referring to **claim 8**, Barry '943 discloses wherein said step of processing comprises generating bit map data signals (col. 10, lines 59-60).

15. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barry Patent 6,825,943, Motamed Patent 6,327,050 and Tannenbaum Patent 5,434,967 as

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applied to claim 17 above, and further in view of Hewitt Patent 7,016,061 and Manglapus Patent 6,219,151.

Referring to **claim 18**, Barry '943 discloses wherein said sequencer coordinates print jobs in said pipeline, but does not disclose expressly wherein said sequencer maintains a queue.

Motamed '050 discloses wherein said sequencer maintains a queue of said work units (col. 5, lines 39-42 the system can receive jobs over network or media to one smart queue and automatically assign the job to the optimal RIP(s) and print engine(s), while sending the client up to the minute status), and is a higher performance computer than said RIPs (col. 6, lines 45-59, any standard hardware or software RIP may be used in connection with the various modules which comprise the invention) (col. 1, lines 38-50, a hardware RIP is a computer which is attached to an output device and which is dedicated to translating digital image data for output) (col. 5, lines 15-61, adaptive scheduler handles multiple function as opposed to the RIPs), said RIPS accessing said queue and obtaining one or more work unit for processing (col. 5, lines 39-42 the system can receive jobs over network or media to one smart queue and automatically assign the job to the optimal RIP(s) and print engine(s), while sending the client up to the minute status).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize a print stream queue. The motivation for doing so would have been to increase the flexibility of scheduling rasterization.

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Barry '943 does not disclose expressly wherein said sequencer selectively acts as one or more RIPs.

Hewitt '061 discloses wherein said sequencer selectively acts as one or more RIPs (col. 5, lines 25-39, in the event the RIP control module 32 determines that the print job should be processed at the host computer 12, the print job PDL file is passed to the RIP engine 22, processed and then transmitted directly to the print engine 26).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art for a computer to selectively act as a rasterizer. The motivation for doing so would have been to increase the speed of image rasterization.

Barry '943 does not disclose expressly wherein said RIPs request work when ready.

Manglapus '151 discloses wherein a processor requests work when ready (col. 5, lines 52-65, in a print pulling network the network controller 29 may then transmit one or more data packets to request retrieval of the print data from the network memory address, and receive data packets having the print data in response to the request).

At the time of the invention, it would have obvious to a person of ordinary skill in the art to utilize print pulling of data. The motivation for doing so would have been to increase the efficiency and reliability of the printing system. Therefore, it would have been obvious to combine Motamed '050, Hewitt '061 and Manglapus '151 with Barry '943 to obtain the invention as specified in claim 18.

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16. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barry Patent 6,825,943, Motamed Patent 6,327,050 and Tannenbaum Patent 5,434,967 as applied to claim 21 above, and further in view of Manglapus Patent 6,219,151.

Referring to **claim 22**, Barry '943 discloses wherein said sequencer coordinates print jobs in said pipeline, but does not disclose expressly wherein said sequencer maintains a queue.

Motamed '050 discloses wherein said sequencer maintains a queue of said work units (col. 5, lines 39-42 the system can receive jobs over network or media to one smart queue and automatically assign the job to the optimal RIP(s) and print engine(s), while sending the client up to the minute status), and is a higher performance computer than said RIPs (col. 6, lines 45-59, any standard hardware or software RIP may be used in connection with the various modules which comprise the invention) (col. 1, lines 38-50, a hardware RIP is a computer which is attached to an output device and which is dedicated to translating digital image data for output) (col. 5, lines 15-61, adaptive scheduler handles multiple function as opposed to the RIPs), said RIPS accessing said queue and obtaining one or more work unit for processing (col. 5, lines 39-42 the system can receive jobs over network or media to one smart queue and automatically assign the job to the optimal RIP(s) and print engine(s), while sending the client up to the minute status).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize a print stream queue. The motivation for doing so would have been to increase the flexibility of scheduling rasterization.

Barry '943 does not disclose expressly wherein said RIPs request work when ready.

Manglapus '151 discloses wherein a processor requests work when ready (col. 5, lines 52-65, in a print pulling network the network controller 29 may then transmit one or more data packets to request retrieval of the print data from the network memory address, and receive data packets having the print data in response to the request).

At the time of the invention, it would have obvious to a person of ordinary skill in the art to utilize print pulling of data. The motivation for doing so would have been to increase the efficiency and reliability of the printing system. Therefore, it would have been obvious to combine Motamed '050 and Manglapus '151 with Barry '943 to obtain the invention as specified in claim 22.

17. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barry Patent 6,825,943, Motamed Patent 6,327,050 and Tannenbaum Patent 5,434,967 as applied to claim 21 above, and further in view of Hewitt Patent 7,016,061.

Referring to **claim 18**, Barry '943 discloses wherein said sequencer coordinates print jobs in said pipeline, but does not disclose expressly wherein said sequencer selectively acts as one or more RIPs.

Hewitt '061 discloses wherein said sequencer selectively acts as one or more RIPs (col. 5, lines 25-39, in the event the RIP control module 32 determines that the print job should be processed at the host computer 12, the print job PDL file is passed to the RIP engine 22, processed and then transmitted directly to the print engine 26).

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At the time of the invention, it would have been obvious to a person of ordinary skill in the art for a computer to selectively act as a rasterizer. The motivation for doing so would have been to increase the speed of image rasterization. Therefore, it would have been obvious to combine Hewitt '061 with Barry '943 to obtain the invention as specified in claim 24.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter K. Huntsinger whose telephone number is (571)272-7435. The examiner can normally be reached on 9-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571)-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter K. Huntsinger/
Examiner, Art Unit 2625

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625